

IN THE CLAIMS

Even though none of the claims are being amended herein, for the convenience of the Examiner, the following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

Claims 1-85 (canceled)

Claim 86 (previously presented): A method of data packet transmission from a first network to a second network via a communication device interconnecting the first and second networks, the first network being a communication bus transporting data packets in isochronous and asynchronous modes, the second network being a packet-switching network transporting data packets in connected and non-connected modes, the method comprising the steps of:

allocating internal resources adapted to a receiving mode in which data packets are received from the first network; and

transmitting data packets to the second network through the internal allocated resources in a mode associated with the receiving mode by using the reserved resources,

wherein in a case in which the isochronous mode is associated with the connected mode, said allocating step is performed before the communication device receives data packets from the first network, and in a case in which the asynchronous mode is associated with the non-connected mode, said allocating step is performed after the communication device

receives data packets from the first network.

Claim 87 (previously presented): A method according to claim 86, further comprising a previous step of reserving resources on the second network, wherein, in a case of the isochronous mode, said allocating step includes allocating memory areas associated with resources previously reserved on the second network.

Claims 88-91 (canceled).

Claim 92 (previously presented): A method according to claim 86, wherein, in a case of the asynchronous mode, said allocating step includes allocating intermediate storage area which is associated with a control processing unit, so that the communication device may receive further data packets even when the processing unit is not able to process data immediately.

Claims 93-95 (canceled).

Claim 96 (previously presented): A method according to claim 92, further comprising the step of transferring data packets from the intermediate storage to at least one of the one or more memory areas before being transmitted to the second network.

Claim 97 (previously presented): A communication device interconnecting first and second networks, for transferring data packets from the first network to the second network, the communication device interconnecting the two networks, the first network being a communication bus transporting data packets in isochronous and asynchronous modes, the second network being a packet-switching network transporting data packets in connected and non-connected modes, said communication device comprising:

allocating means for allocating internal resources adapted to a receiving mode in which data packets are received from the first network;

transmitting means for transmitting data packets to the second network through the internal allocated resources, in a mode associated with the receiving mode; and

reserving means for reserving resources on the second network in a case of transmission of data packets in the isochronous mode,

wherein, in a case in which the isochronous mode is associated with the connected mode, the allocating means allocates memory areas associated with resources reserved on the second network, and in a case in which the asynchronous mode is associated with the non-connected mode, the allocating means allocates intermediate storage areas.

Claims 98-103 (canceled).

Claim 104 (previously presented): A communication device according to claim 97, further comprising:

a control processing unit that is associated with said intermediate storage areas;

so that said communication device may receive further data packets even when said control processing unit is not able to process data immediately.

Claims 105-107 (canceled).

Claim 108 (previously presented): A method according to claim 87, wherein the resources previously reserved on the second network include at least channel numbers so that a memory area allocated as an internal resource is associated with a channel number.

Claim 109 (previously presented): A communication device according to claim 104, further comprising at least one or more memory areas, wherein, in a case of the asynchronous mode, the transmitting means are adapted to transmit data packets from the intermediate storage areas to the at least one or more memory areas before transmitting data to the second network.

Claim 110 (previously presented): A communication device according to claim 97, wherein the resources reserved on the second network include at least channel numbers so that a memory area allocated as an internal resource is associated with a channel number.